QUESTIONS AND ANSWERS FROM User's Group Meeting

November 8 & 9, 1999

General

Question 1: Can you clarify the definitions of the "low", "mid" and "high" operating levels in section 6.5.2.1 of Appendix A of Part 75? Specifically, at the boundaries between adjacent levels, is 30.0% part of the low or mid level ? Is 60.0% part of the mid or high level ?

Answer: The "low" operating level extends from 0.0 to 30.0% of the range of operation, inclusive. The "mid" level is defined as > 30.0% and $\leq$ 60.0% of the range of operation. The "high" level is defined as > 60.0% of the range of operation. These boundary conditions are incorrectly represented in the August 16, 1999 revised EDR version 2.1 and the accompanying reporting instructions (see instructions for EDR Record Type 695). EPA will correct the EDR and instructions in the next update cycle.

Question 2: The "range of operation" as defined in section 6.5.2.1 in Appendix A of Part 75 extends from the "minimum safe, stable load" to the "maximum sustainable load". What is meant by the "minimum safe, stable load" ?

Answer: The minimum safe, stable load is not precisely defined in either Part 72 or Part 75 of the Acid Rain rules. In the absence of such a definition, use the following guidelines. The minimum safe, stable load is the lowest load at which a unit is capable of being held for an extended period of time, without creating an unsafe or unstable operating condition. If the boiler manufacturer recommends that the unit not be operated below a certain load level, this may be used as the minimum safe, stable load. If such a recommendation is unavailable, you may use sound engineering judgment, based on a knowledge of the historical operation of the unit, to estimate the minimum safe, stable load. In making this determination, you may exclude low unit loads recorded during startup or shutdown while the unit is "ramping up" or "ramping down", unless these loads are able to be sustained and safely held for several hours at a time.

Span, Calibration, and Linearity

Question 3: Section 2.1.3 in Appendix B of Part 75 requires an "additional" calibration error test to be performed whenever "non-routine" calibration adjustments are made to a monitor. Section 2.2.3 of Appendix B allows non-routine adjustments prior to quarterly linearity checks. Is it necessary to perform the "additional" calibration error test prior to the linearity test or can this calibration error test be performed

immediately after the linearity check?

Answer: You may perform the additional calibration error test after the linearity check rather than prior to the check. However, you must follow the data validation rules in sections 2.1.3 (a) and (c) of Appendix B associated with this calibration error test. Sections 2.1.3 (a) and (c) state that following non-routine adjustments, emission data from a monitor are considered to be invalid until an additional "hands-off"calibration error test has been completed and passed, which demonstrates that the monitor is operating within its performance specifications. Therefore, if you perform the additional calibration error test after a linearity check, you must invalidate any emission data collected in the time period beginning with the non-routine adjustment of the monitor and ending at the time of successful completion of the calibration error test. In order to validate the linearity test, the calibration error test must show the monitor to be operating within its performance specification band ($\pm$ 2.5% of span). If the calibration error test shows that the monitor is not operating within its performance specification, the linearity test is invalidated and must be repeated.

Question 4: If a facility changes the span of a gas monitor, is a linearity check required ?

Answer: It depends. Sections 2.1.1.5 and 2.1.2.5 in Appendix A of Part 75 require a diagnostic linearity check to be performed following a span adjustment of a gas monitor *only if* the span adjustment is so significant that the calibration gases currently used for daily calibration error tests and linearity checks are unsuitable for use with the new span value. For instance, suppose that the span of a NO_x monitor is 1000 ppm and the "low", "mid" and "high" calibration gases currently in use have concentrations of 250 ppm, 525 ppm and 825 ppm, respectively. If, following a required annual span and range evaluation, the span is changed to 900 ppm, these calibration gas concentrations, expressed as percentages of the new span value, would be, respectively, 27.8%, 58.3% and 91.6%. Since the calibration gases are still within the tolerance bands for low, mid and high-level concentrations (i.e., 20.0-30.0% of span for low-level, 50.0-60.0% of span for mid-level and 80.0-100.0% of span for high level), a diagnostic linearity check would not be required in this case. However, if the span had been lowered to 800 ppm or less, the current calibration gases would no longer be within the tolerance bands and a diagnostic linearity check would be required.

In cases where a span adjustment is required and the current calibration gases are unsuitable for use with the new span value, the owner or operator has up to 90 days after the end of the quarter in which the need to adjust the span is identified to implement the change (see sections 2.1.1.5 and 2.1.2.5 of Appendix A). This allows time to purchase and receive the new calibration gases.

Question 5: If, during a "QA operating quarter", a successful diagnostic linearity check is performed following a change to the span of a gas monitor, may this diagnostic linearity check be used to meet the quarterly linearity check requirement of section 2.2.1 in Appendix B of Part 75 ?

Answer: Yes. This is consistent with section 2.4 of Appendix B, which allows quality

assurance tests to serve a dual purpose. In the example cited in section 2.4, a single linearity check is used to meet a recertification requirement and to satisfy the routine quality assurance requirements of Appendix B.

In EDR Version 2.1, there is a new field in column 75 of record type 601 (Linearity Check Results), in which the "Reason for Test" is reported (e.g., "Q" = routine quality assurance, "D" = diagnostic, "R" = recertification, etc.). When a test is performed for a dual purpose, a two-letter code is used. In the present example, since the linearity check is done both for routine quality assurance and as a diagnostic test, the code "QD" would be reported in RT 601, column 75.

DAHS, Recordkeeping and Reporting

Question 6: Suppose that in the first two 15-minute quadrants of an hour (Hour # 1) I collect sufficient valid emission data from a CEMS to meet the requirement of § 75.10 (d)(1) and then I perform preventative maintenance on the CEMS for the remainder of that hour, extending into the next clock hour (Hour # 2). If the monitor passes a post-maintenance calibration error test in hour # 2 and collects sufficient valid data in the last two 15 minute quadrants of Hour # 2 to satisfy § 75.10 (d)(1) , are both Hours # 1 and 2 valid, or is only Hour # 2 valid ?

Answer: The emission data for both Hours # 1 and # 2 may be reported as quality-assured. The principal data capture requirement for Part 75 sources in § 75.10 (d)(1) states that in order to validate data for an hour, you must obtain at least one valid data point in each quadrant of the hour in which fuel is combusted,. However, § 75.10 (d)(1) provides an exception to this requirement for hours in which quality assurance testing and preventive maintenance activities are performed. For such hours, a minimum of two data points, separated by at least 15 minutes, are required to validate the hour.

In the present case, the emission data collected in Hour # 1 are considered valid, because the data were recorded prior to the maintenance event (i.e., prior to commencement of the out-of-control period). The data in Hour # 2 are valid because they were collected after a successful post-maintenance calibration error test (i.e., after the end of the out-of-control period).

Moisture Monitoring

Question 7: What is the deadline for certifying continuous moisture monitoring systems ? Is it January 1, 2000 or April 1, 2000 ?

Answer: According to § 75.4 (i)(1), the deadline for completing the certification testing of moisture monitoring systems is April 1, 2000.